Abstract

A solution for a tower (10) that may be substantially tall, characterized by the appearance of a monopole, the capacity to support large objects and consequently sustain great lateral loads generated by wind or earthquake, the facility to conceal vertical access ladder and all other installations, such as antenna feeder cables, and the availability at an acceptable cost level.

The heart of the invention is the basic concept of separation between the structurally functioning elements, which are kept concealed, and a non-structural shell (12) which provides the tower (10) the shape of a monopole.

The tower (10) comprises, therefore, a tall metal lattice structure (14) having a central vertical axis (1) and certain apparatus for its anchoring to a foundation, concealed within a shell (12) concentric with said central vertical axis (1) and further characterized, at any given level, by a closed cross-section which is either circular or equi-sided polygonal, said shell (12) being internally secured to and supported by said lattice metal structure (14) in an appropriate density throughout its area, so as to maintain its shape when subjected to wind loads or any other likely loads.